



# HOMEOWNER'S CARE AND OPERATION INSTRUCTIONS

RETAIN THESE INSTRUCTIONS  
FOR FUTURE REFERENCE



## ! WARNINGS

- **Hot! Do not touch!** The glass and surfaces of this appliance will be hot during operation and will retain heat for a while after shutting off the appliance. Severe burns may result.
- Carefully supervise children in the same room as appliance.
- If small children are present in the home, it is recommended that this appliance be fitted with a screen door or screen panel kit. See *Page 15* for ordering information.

**WARNING: IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

**FOR YOUR SAFETY:** Do not store or use gasoline or other flammables or liquids in the vicinity of this or any other appliance.

**FOR YOUR SAFETY:** What to do if you smell gas:

- **DO NOT** light any appliance.
- **DO NOT** touch any electrical switches.
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow your gas suppliers instructions.
- If your gas supplier cannot be reached, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

## DIRECT VENT SSDV-35/40 SERIES

### DIRECT-VENT GAS FIREPLACE HEATERS

P/N 725,033M REV. D 05/2006

## MODELS

### Millivolt Models

SSDVT-3530CNM  
SSDVR-3530CNM  
SSDVT-4035CNM  
SSDVR-4035CNM

### Electronic Models

SSDVT-3530CNE  
SSDVR-3530CNE  
SSDVT-4035CNE  
SSDVR-4035CNE

*A French manual is available upon request. Order P/N 725,033CF*

*Ce manuel d'installation est disponible en français, simplement en faire la demande. Numéro de la pièce 725,033CF*

**AVERTISSEMENT: ASSUREZ-VOUS DE BIEN SUIVRE LES INSTRUCTIONS DONNÉ DANS CETTE NOTICE POUR RÉDUIRE AU MINIMUM LE RISQUE D'INCENDIE OU POUR ÉVITER TOUT DOMMAGE MATÉRIEL, TOUTE BLESSURE OU LA MORT.**

**POUR VOTRE SÉCURITÉ:** Ne pas entreposer ni utiliser d'essence ni d'autre vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

**POUR VOTRE SÉCURITÉ:** Que faire si vous sentez une odeur de gaz:

- Ne pas tenter d'allumer d'appareil.
- Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones se trouvant dans le bâtiment où vous vous trouvez.
- Evacuez la pièce, le bâtiment ou la zone.
- appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz,appelez le service des incendies.

L'installation et service doit être exécuté par un qualifié installateur, agence de service ou le fournisseur de gaz.

Tested &  
Listed By



Beaverton  
Oregon USA

OTL Report No. 116-F-29-5

OMNI-Test Laboratories, Inc.

## SAFETY & WARNING INFORMATION

**IMPORTANT: PLEASE READ THIS MANUAL IN ITS ENTIRETY AND UNDERSTAND THESE RULES TO FOLLOW FOR SAFETY.**



### ! WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.



### ! WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

### ! WARNING

Failure to comply with the installation and operating instructions provided in this document will result in an improperly installed and operating appliance, voiding its warranty. Any change to this appliance and/or its operating controls is dangerous. Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.

### ! IMPORTANT

These appliances must not be connected to a chimney or flue serving a separate Solid-Fuel burning appliance.

### ! WARNING

Children and adults should be alerted to the hazards of high surface temperatures. Use caution around the appliance to avoid burns or clothing ignition. Young children should be carefully supervised when they are in the same room as the appliance.

*Note: An Optional Screen Panel for the glass is available (see Page 15 for ordering information).*

### ! WARNING

Do not place clothing or other flammable materials on or near this appliance.

### ! AVERTISSEMENT

Surveiller les enfants. Garder les vêtements, les meubles, l'essence ou autres liquides à vapeur inflammables à côté de l'appareil.

### ! WARNING

Carbon monoxide poisoning: early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Turn off the gas supply to the appliance and have it serviced by a qualified professional, as it may not be operating correctly.

### ! WARNING

Any safety guard or screen removed for servicing the appliance must be replaced prior to operating the appliance.

### ! WARNING

Do not use these appliances if any part has been under water. Immediately call a qualified, professional service technician to inspect the appliances and to replace any parts of the control system and any gas controls which have been under water.

### ! AVERTISSEMENT

Ne pas se servir de cet appareil s'il a été plongé dans l'eau, complètement ou en partie. Appeler un technicien qualifié pour inspecter l'appareil et remplacer toute partie du système de contrôle et toute commande qui ont été plongés dans l'eau.

### ! WARNING

Do not attempt to alter or modify the construction of the appliance or its components. Any modification or alteration may void the warranty, certification and listings of this unit.

### ! WARNING

This appliance is only for use with the type of gas indicated on rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

### ! AVERTISSEMENT

Cet appareil doit être utilisé uniquement avec les types de gaz indiqués sur la plaque signalétique. Ne pas l'utiliser avec d'autres gaz sauf si un kit de conversion certifié est installé.

### ! WARNING

These fireplaces are vented heaters. Do not burn wood or other material in these appliances.

## CONGRATULATIONS!

In selecting this SUPERIOR Direct-Vent Gas Appliance you have chosen the finest and most dependable fireplace to be found anywhere. A beautiful, prestigious, alternative to a wood burning fireplace. Welcome to a Family of tens of thousands of satisfied SUPERIOR Fireplace Owners.

Please read and carefully follow all of the instructions found in this manual. Please pay special attention to the safety instructions provided in this manual. The Homeowner's Care and Operation Instructions included here will assure that you have many years of dependable and enjoyable service from your SUPERIOR product.

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## INTRODUCTION

The Fireplace models covered in this manual are Direct-Vent sealed combustion gas fireplace heaters designed for residential application. Direct-Vent appliances operate with the combustion chamber completely isolated from the indoor environment. All air for combustion is brought in from the outside and exhaust gases are vented through the same direct vent, co-axial (intake/exhaust) vent system.

The Millivolt appliances have a millivolt gas control valve with piezo ignition system provides safe, efficient operation. If any optional accessories which require electrical power are being installed, the electrical power must be provided at the time of appliance installation.

The Electronic appliances have an electronic intermittent pilot system provides safe, efficient operation. External electrical power is required to operate these appliances.

These appliances comply with National Safety Standards and are tested and listed by Omni-Test Laboratories (Report No. 116-F-29-5) to ANSI Z21.88b-2003 (in Canada, CSA-2.33b-2003), and CAN/CGA-2.17-M91 in both USA and Canada, as vented gas fireplace heaters.

The Installation must conform to local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest edition, or the Natural Gas and Propane Installation Code, CSA B149.1-latest edition. The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the latest edition of the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1 - latest editions.

## GENERAL INFORMATION

**Note:** Installation and repair should be performed by a qualified service person. The appliance should be inspected annually by a qualified professional service technician. More frequent inspections and cleanings may be required due to excessive lint from carpeting, bedding material, etc.

*It is imperative that the control compartment, burners and circulating air passage ways of appliance be kept clean.*

*S'assurer que le brûleur et le compartiment des commandes sont propres. Voir les instructions d'installation et d'utilisation qui accompagnent l'appareil.*

Provide adequate clearances around air openings and adequate accessibility clearance for service and proper operation. Never obstruct the front openings of the appliance.

**These appliances are designed to operate on natural or propane gas only. The use of other fuels or combination of fuels will degrade the performance of this system and may be dangerous.**

These fireplaces are designed as supplemental heaters. Therefore, it is advisable to have an alternate heat source when installed in a dwelling.

**These appliances are designed to operate on natural gas or propane gas only. The use of other fuels or combination of fuels will degrade the performance of this system and may be dangerous.**

## Millivolt Models - BTU Input

Millivolt models come standard with the manually-modulated gas valve; flame appearance and heat output can be controlled at the gas valve. The BTU Input for millivolt models is shown in **Tables 1 & 2**.

Input (BTU) Manually-Modulated Gas Valves (millivolt models)	
NATURAL GAS	
Models	Input Rate (BTU / HR)
SSDV-3530CNM	23,000 high 17,500 low
SSDV-4035CNM	29,000 high 21,500 low

**Table 1**

Input (BTU) Manually-Modulated Gas Valves (millivolt models)	
PROPANE GAS if unit was field converted	
Models	Input Rate (BTU / HR)
SSDV-3530CPM	23,000 high 17,500 low
SSDV-4035CPM	29,000 high 22,500 low

**Table 2**

## Electronic Models -

Electronic models have a fixed rate gas valve. The BTU Input for electronic models is shown in **Table 3**:

Electronic Models with Fixed Rate Gas Valve	
Natural and Propane Gas	
Model Series	Input Rate (BTU / HR)
SSDV-3530	23,000
SSDV-4035	29,000

**Table 3**

## Gas Pressure - All Models

**Tables 4, 5 and 6** show the appliances' inlet gas pressure requirements:

Inlet Gas Supply Pressure (all models)		
Fuel #	Minimum	Maximum
Natural Gas	5.0" WC (1.24 kPa)	10.5" WC (2.61 kPa)
Propane	11.0" WC (2.74 kPa)	13.0" WC (3.23 kPa)

**Table 4**

Manifold Gas Supply Pressure (millivolt models)		
Fuel #	Low	High
Natural Gas	(Lo) 2.2" WC (.55 kPa)	(Hi) 3.5" WC (.87 kPa)
Propane	(Lo) 6.3" WC (1.57 kPa)	(Hi) 10.0" WC (2.49 kPa)

**Table 5**

Manifold Gas Supply Pressure (electronic models)	
Fuel #	Maximum Manifold Pressure
Natural Gas	(Hi) 3.5" WC (.87 kPa)
Propane	(Hi) 10.0" WC (2.49 kPa)

**Table 6**

Test gauge connections are provided on the front of the millivolt gas control valve, identified IN for the inlet and OUT for the manifold side. A 1/8" NPT Test gauge connection is provided at the inlet and outlet side of the electronic gas control valve.

These appliances must be isolated from the gas supply piping system (*by closing their individual manual shut-off valve*) during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).

These appliances and their individual shut-off valves *must be disconnected* from the gas supply piping system during any pressure testing of that system at pressures greater than 1/2 psig (3.5 kPa).

**Orifice Sizes - Sea Level to High Altitude (All Models):** These appliances are tested and approved for installations at elevations of 0-4500 feet (0-1372 meters) above sea level using the standard burner orifice sizes (marked with an \*\* in **Table 7**).

At the time of installation, it must be determined if the appliance needs to be derated. Contact your local gas supplier for deration requirements for your area.

**Deration** - At higher elevations, the amount of BTU fuel value delivered must be reduced by either using gas that has been derated by the gas company or by changing the burner orifice to a smaller size as regulated by the local authorities having jurisdiction and by the (USA) National Fuel Gas Code NFPA 54 / ANSI Z223.1 - latest edition or, in Canada, the CAN1-B149.1 and .2 codes - latest edition.

Burner Orifice Sizes Elevation 0-4500 feet (0-1372 meters)		
Model Series	Natural Gas drill size (inches)	Propane Gas drill size (inches)
SSDV-3530	2.3 mm (.090") * 37L70 •	#54 (.055") * 99K79 •
SSDV-4035	#36 (.1065") * 18L40 •	#52 (.0635") * 37G00 •

\* Standard size installed at factory  
• Part/Cat. Number

**Table 7**

## Burn-in Period

During the first few fires of this appliance there will be some odor due to the curing of the paint and burning off of lubricants used in the manufacturing process.

Depending on your use, the burn-in period may take a few hours or a few days.

**KEEP YOUR HOUSE WELL VENTILATED DURING THE CURING PROCESS. THE ODOR AND HAZE EMITTED DURING THE CURING PROCESS CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR.**

If an optional blower is installed, Do not turn it on during the Burn-In period.

A white film may develop on the glass front during the first few fires as part of the curing process. The glass should be kept clean during the first two weeks of use to prevent the film from baking on (making it very difficult to remove). See *Cleaning Glass* on **Page 6**.

## Gas Controls / Control Compartment Access

**NOTE:** The top louvered panel and the bottom louvered control panel door remove and install the same way as follows:

The gas controls can be found behind the control compartment access door.

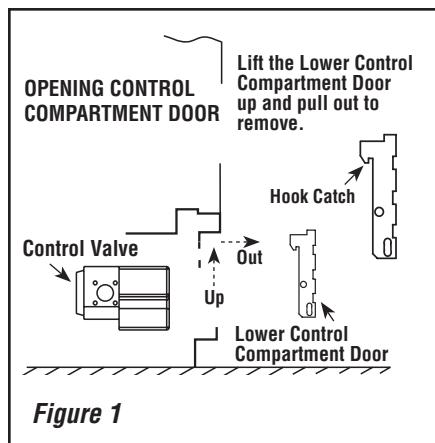
## Removing Control Compartment Door:

Open the door by gently lift it upward until the hook catches on both sides clear the locating slots. Then pull door out to remove.

On millivolt systems, the piezo igniter, HI/LO flame adjustment knob, and pilot and main gas OFF/ON control knob are located below the glass panel enclosure. The gas valve for electronic systems is also located below the glass enclosure panel. See **Figure 1**.

## Reinstalling Control Compartment Door:

To reinstall, insert the hook catches on each side of the door into the corresponding slots in the control compartment opening, then gently push forward and side down until it locks in place.



**Figure 1**

Operation of millivolt and electronic gas control systems are different. Before lighting and operating your appliance determine if you have a millivolt or electronic appliance. Familiarize yourself with the gas control valve that your appliance uses. Refer to **Figure 1** for access to the gas control valve.

**Millivolt Appliances** - Appliances with Millivolt systems will be fitted with the gas control valve shown in **Figures 4 or 5**.

**Electronic Appliances** - Appliances with electronic systems will be fitted with the electronic valve shown in **Figure 3**.

**Millivolt Appliances** - To light millivolt appliances refer to the detailed lighting instructions found on **Pages 17 & 18**. Millivolt appliance lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.

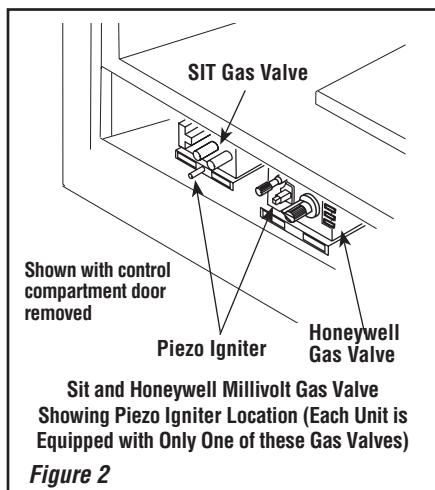
Millivolt appliances are fitted with an OFF/ON Rocker Switch located behind the control compartment access door, below the appliance front glass enclosure panel (see **Figure 1** for location). Once the pilot is lit, the OFF/ON rocker switch will control the appliance OFF/ON burner operation. To operate: Toggle the switch between its ON and OFF positions.

If your millivolt appliance is equipped with an optional remote switch kit (wall switch, remote control or wall thermostat) and the pilot is lit, the appliance main burner may be turned on and off using the optional switch. When using an optional remote switch, turn off the standard OFF/ON switch.

## OPERATION AND CARE OF YOUR APPLIANCE

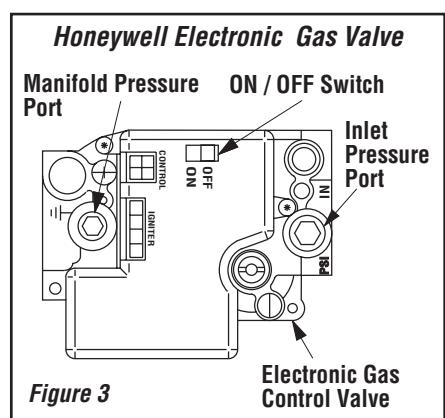
The standard controls for appliance operation are located behind the panel below the appliance front glass enclosure panel (see **Figure 1**). Optional control switches are also available (see **Page 14 - Remote Wall Switch, Remote Control or Wall Thermostat**).

**Note:** To prevent excessive resistance in burner circuit (which can cause burner operation problems), only one burner control switch should be wired to valve. Therefore, if an optional control switch is installed, the standard Off/On switch and wires should be removed.



### Electronic Appliances -

To light electronic appliances refer to the detailed lighting instructions found on **Pages 19 & 20** of these instructions. Electronic appliance lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.



If your electronic appliance is equipped with an optional remote wall switch or remote control kit the appliance main burner may be turned on and off with the wall switch or remote control.

If your electronic appliance is not equipped with a wall switch or remote control, the main burner must be turned off and on with the gas control switch. Toggle the switch from ON to OFF to operate the main burner.

### Variable Flame Height Adjustment (Millivolt Appliances only)

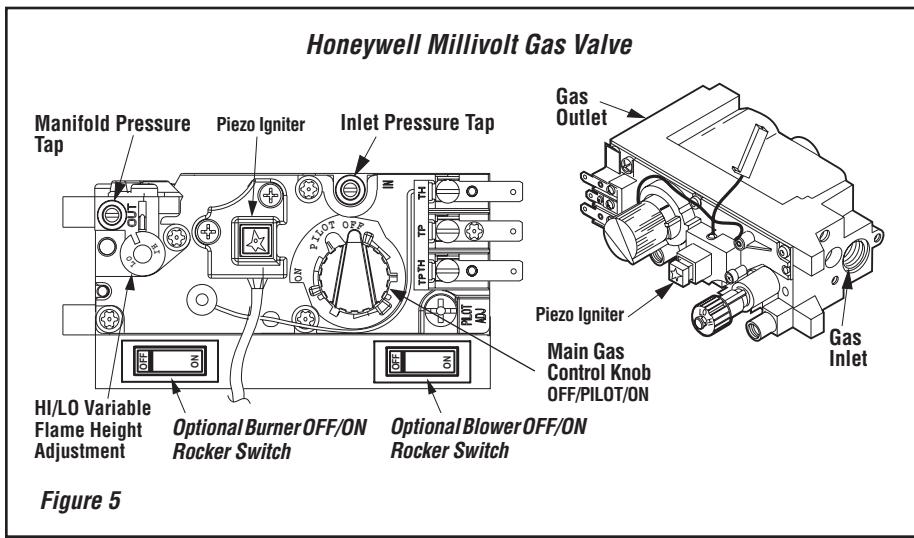
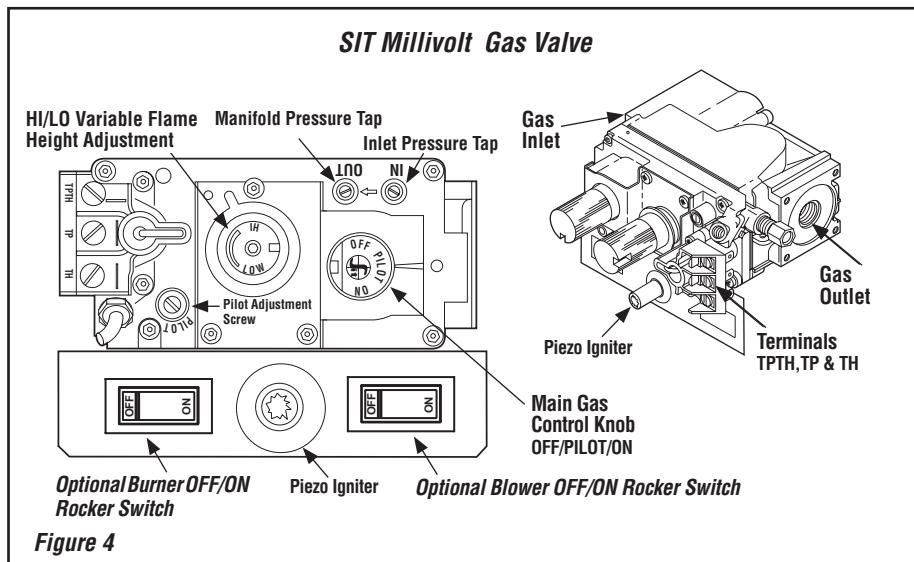
1. All Millivolt appliances are equipped with a variable gas control valve. Flame height for these models may be adjusted through a range between fixed low and high settings while the appliance is in operation.

Adjust the flame height as desired after lighting the appliance by rotating the variable adjustment control knob (HI/LO) located on the front of the valve (refer to **Figures 4 & 5**).

2. During the first initial burns of these appliances, there will be some odor emitted (see **Burn-In Period on Page 4**).

3. Keep the lower control compartment clean by vacuuming or brushing at least twice a year. More frequent cleaning may be required due to excessive lint from carpeting, bedding materials, pet hair, etc. **It is very important that the control compartments, burners and circulating air passageways of the appliance are kept clean.**

4. Always turn off gas to the pilot (millivolt appliances) and let the appliance cool down before cleaning. Before re-lighting, refer to the lighting instructions in this manual. Lighting instructions may also be found on the pull out lighting instruction labels attached to the gas control valve.
5. Always keep the appliance area clear and free from combustible materials, gasoline and other flammable liquids.
6. Remember, Millivolt appliances have a continuous burning pilot flame. Exercise caution when using products with combustible vapors.



## MAINTENANCE

### (See Maintenance Schedule, Page 21)

Refer to the maintenance schedule for maintenance tasks, procedures, periodicity and by whom they should be performed. Always verify proper operation of the appliance after servicing.

**Before re-lighting the fireplace, refer to the lighting instructions in this manual. Instructions are also found on pull-out panels located below the glass door in the control compartment.**

### ! WARNING

**Turn off gas and electrical power before servicing the appliance.**

### ! CAUTION

**Wear gloves and safety Glasses for protection while doing required maintenance.**

### ! IMPORTANT

**Always verify proper operation after servicing.**

#### Inspect Venting System

The appliance and venting system should be thoroughly inspected before initial use and at least annually by a qualified service technician (inspection should include ensuring that exhaust or intake passages are unobstructed and vent components are properly assembled and not damaged). If the venting system is disassembled for any reason, a qualified service technician should follow vent installation instructions for proper reassembly and proper sealing of the venting system components. However, more frequent periodic inspections and cleanings should be performed by the homeowner.

#### Clean Lower Control Compartment

Keep lower control compartment clean by vacuuming or brushing it out at least twice a year (also clean the air venturi with a brush or wire). More frequent cleaning may be required due to accumulation of lint from carpeting, bedding materials, pet hair, spider webs, etc. **It is very important that control compartments, burners, circulating air passageways and air venturi on the appliance are NOT obstructed in any way.**

### ! IMPORTANT

**It is imperative that the control compartment, burners and circulating air passage ways of appliance be kept clean.**

#### Cleaning Glass

(see *Front Glass Enclosure Panel, Removal and Installation* on **Pages 7**).

**Note:** Clean glass after first two weeks of operation (after Burn-In period is over) and then only when necessary and when the fireplace is cool. Wipe surface with clean, dampened, soft cloth. Follow with dry, soft towel as desired. Take care not to scratch the glass surface.

The viewing glass should be cleaned periodically to remove any build-up caused from the following:

### ! IMPORTANT

**Do not use abrasive cleaners on glass. Never clean the glass when it is hot.**

- During start-up, it is normal for condensation to form on the inside of the glass (this condensation and fog will usually disappear in a few minutes). The moisture can cause lint, dust and other airborne particles to cling to the glass surface.
- Initial curing of the high temperature paint and burning off of lubricants used in the manufacturing process may result in a film on the glass.
- A white coating may form on the glass as a result of impurities and minerals in the fuel.

It is recommended that the glass be cleaned two or three times during each heating season, depending on the circumstances present. The following cleaning solutions are approved for use to clean glass:

- Non-ammonia based household cleaner
- 50%-50% mix of white vinegar & water
- Gas fireplace/stove glass cleaner

**Inspect Glass Gasket** - Visually inspect the gasket on the backside of the glass enclosure panels. The gasket surface must be clean, free of irregularities and seated firmly.

#### Clean Logs And Burner

Carefully remove the logs (use care when handling the fiber logs, as they become quite fragile after curing). Vacuum out any foreign matter (lint, carbon, etc.) on the burner. Ensure the burner ports are "open." Remove any carbon deposits from the under side of the logs using a vacuum cleaner, or a soft bristled brush (i.e. paint brush). Note: Improper positioning of logs can create carbon build-up and will alter the performance of the appliance.

#### Replacing Logs

If the logs become damaged by accident or improper handling and need replacement, use only the proper replacement logs from manufacturer (see **Page 24** for ordering information).

#### Re-Install Embers, Logs and Volcanic Stone

- Carefully follow placement instructions on **Pages 8 to 10**. All logs should fit onto corresponding pins and/or log stoppers. This will ensure a proper flame and safe combustion.

#### Inspect Wiring

Refer to wiring diagrams on **Page 13**.

### ! WARNING

**Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.**

Inspect and clean all wire connections. Ensure that there is no melting or damage. Inspection should include:

- Terminals at the Valve
- OFF/ON Switch
- (Optional Control Switch) Wall Thermostat, Remote Control or Remote Wall Switch Kit

#### Inspect Burner Flame Appearance

Ensure that the burner flame appearance resembles the flame shown in **Figure 10** and as described in *Flame Appearance and Sooting* on **Page 11**. The Homeowner must contact a qualified service technician at once if any abnormal condition is observed.

#### Small Area Paint Touch-up

The finish of the appliance is a high quality powdercoat. Only use factory supplied powdercoat paint kit for touch-ups. Paint is available at your local authorized LHP dealer, cat. no. 90L74. Never attempt to paint a hot fireplace.

Do not attempt to repaint the appliance until the finish is completely cured (see *Burn-In Period* on *Page 4*). If the surface later becomes stained or marred, it may be lightly sanded and touched up with spray paint.

#### Front Glass Enclosure Panel, Removal and Installation

#### ! WARNING

**Do not operate appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service technician.**

#### ! WARNING

**Do not attempt to substitute the materials used on this door, or replace cracked or broken glass with any materials other than those provided by the appliance manufacturer.**

#### ! WARNING

**Handle this glass with extreme care! Tempered glass is susceptible to damage – do not scratch or handle roughly while reinstalling the glass door frame.**

#### ! WARNING

**Do not attempt to touch the front enclosure glass with your hands while the fireplace is in use.**

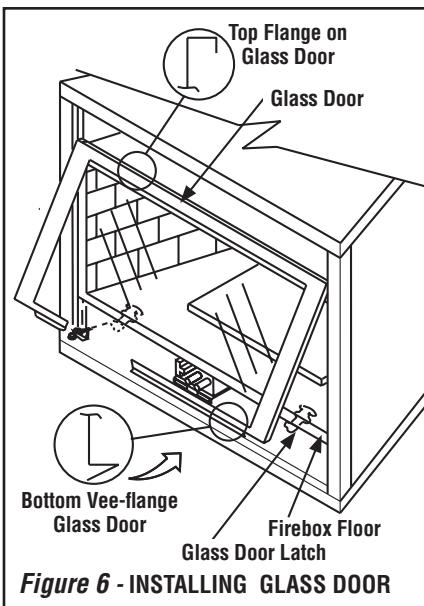
#### ! WARNING

**The glass door of this appliance must only be replaced as a complete unit as provided by the manufacturer. Do not attempt to replace broken, cracked or chipped glass separately.**

These are direct-vent appliances. They are designed to operate only when the front glass enclosure panel is installed. Generally the front glass enclosure panel should not be removed except to gain access to the components within the firebox, and the appliance may only be operated without the front glass enclosure panel in place for very brief periods of time during appliance checkout and adjustment. **Note:** The flame appearance will be diminished while the front glass enclosure panel is removed.

During this appliance checkout and adjustment period, a potential safety hazard exists

**- EXERCISE EXTREME CAUTION** to prevent the occurrence of any burn injuries from the exposed flames or hot surfaces. Also note, that while the front glass enclosure panel (or any of the panels) is removed, the flame appearance will appear to be smaller than normal.



**Figure 6 - INSTALLING GLASS DOOR**

#### Removing Glass Enclosure Panels (see *Figure 6*)

1. Remove the top louver assembly by lifting it up and pulling it out.
2. Remove the control compartment access door (see removal instructions on *Page 4 - Removing Control Compartment Door*).
3. Locate the two (2) latches at the top of the control compartment. To disengage the two latches from the bottom vee-flange of the glass enclosure panel, reach for the handles located towards the back of the latches and pull the handles down toward the front of the appliance.
4. Swing the bottom of the door out and raise it slightly to lift the top flange of the door frame away from the appliance.

#### Installing Glass Enclosure Panels (see *Figure 6*)

1. Visually inspect the gasket on the backside of the glass panel. The gasket surface must be clean, free of irregularities and seated firmly.
2. Position the glass enclosure panel in front of the firebox opening at a 45 degree angle and engage the top flange over the lip at the top of the firebox opening. **See Figure 6.**
3. Swing the glass enclosure panel down and back. Ensure the gasket seats evenly as the panel draws shut. Engage the Vee-flange at the bottom of the panel with the latches and close the latches to secure the panel.
4. Reinstall top louver assembly and control compartment door see installation instructions on *Page 4, Reinstalling Control Compartment Door*.

## INSTALL VOLCANIC STONE, GLOWING EMBERS AND LOGS

1. Remove front glass enclosure panel (see Removing Glass Enclosure Panels on this page).
2. Carefully remove log set box from firebox.

Next, remove embers and volcanic stone from the control compartment. Handle logs carefully to prevent breakage.

3. Install Decorative Volcanic Stone - Mound up a portion of the volcanic stone in front of the burner in a pleasing pattern.

### 4. Placement of Glowing Embers -

Separate the Embers (rockwool) into pieces about the size of a quarter (see **Figure 7**). Keep the pieces fluffed up, not matted. Distribute these pieces over the surface of the burner, as shown in **Figure 8 or 9**. Do not use more than is necessary. Ensure that the main burner ports remain uncovered by the ember material.

**Note:** This appliance is provided with enough Glowing Embers for several applications, do not use all that is in a new bag at one time. For best glowing effect, replace the ember material annually.

### 5. Placement of Logs -

The logs have locating notches or slots to help ensure that they are properly positioned. Proper log placement is critical to prevent sooting.

## SSDV-3530 - Install as Follows

Carefully position the ceramic fiber logs into the firebox as shown in **Figure 8**. Logs should be placed in the order shown and per the following instructions.

1. Place embers on the front burner tube and volcanic stone in front of the burner as shown and per instructions on this Page (see Placement of Glowing Embers & Install Decorative Volcanic Stone on this Page).
2. Place the rear log (A) as shown. Position the 2 notches on the bottom of log (A) over the 2 corresponding locating brackets as shown.
3. Place the center log (C) as shown. The 2 notches on the bottom of log (C) fit over the corresponding locating brackets.
4. Place the left log (B) as shown. The top fork on log (B) fits into the notch on log (A). The bottom of log (B) rests on the subfloor.
5. Place the top right log (D) as shown. The top fork on log (D) fits into notch on log (A) as shown. The bottom fork on log (D) rests on subfloor flange (identified in photo #1).

## SSDV-4035 - Install as Follows

Carefully position the ceramic fiber logs into the firebox as shown in **Figure 9**. Logs should be placed in the order shown and per the following instructions.

1. Place embers on the front burner tube and volcanic stone in front of the burner as shown and per instructions on this Page (see Placement of Glowing Embers & Install Decorative Volcanic Stone on this page).
2. Place the rear log (A) as shown. Position the 2 notches on the bottom of the log over the 2 corresponding locating brackets as shown.
3. Place the center log (C) as shown. The 2 notches on the bottom of the log should fit over the corresponding locating brackets.
4. Place the top right log (D) as shown. The top fork on log (D) fits into notch on log (A) as shown. The bottom fork on log (D) rests on subfloor flange (identified in photo #1).
5. Place the top left log (B) as shown. The top fork on log (B) fits into notch on log (A). The bottom of the log rests on the subfloor.

## WARNING

The size and position of the log set was engineered to give the appliance a safe, reliable and attractive flame pattern. Any attempt to use a different log set in the fireplace will void the warranty and will result in incomplete combustion, sooting, and poor flame quality.

## WARNING

This appliance is not designed to burn wood. Any attempt to do so could cause irreparable damage to appliance and prove hazardous to your safety.

Separate into Quarter Size (separate) Pieces



Figure 7 - Glowing Embers

## WARNING

**DO NOT attempt to install the logs until the appliance installation has been completed, the gas line connected and tested for leaks and the initial burner operation has been checked out.**

## REFERENCE

### Firebox Accessories / Parts

Cat. No.	Model No.	Description
88L53	FGE	Bag of Glowing Embers (1 oz. rockwool)
80L42	FDVS	Bag of Decorative Volcanic Stone

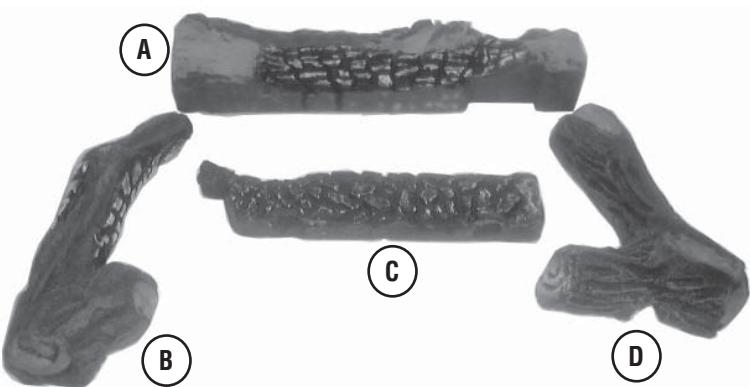
Table 8

## MODEL SSDV-3530

### Log Placement Instructions

LOG SET	
Catalog Number H3367	
* Item	Description
A	Log, Rear
B	Log, Top Left
C	Log, Center
D	Log, Top Right

\* Item "letters" above correspond to photos



Install the Embers, Volcanic Stone and Logs in the order shown here (1 through 5) and per the instructions on Page 8.

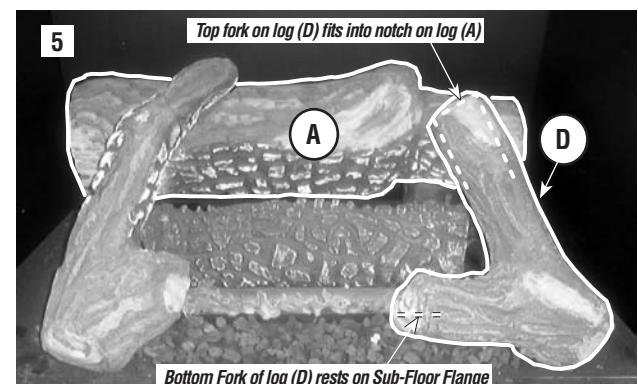
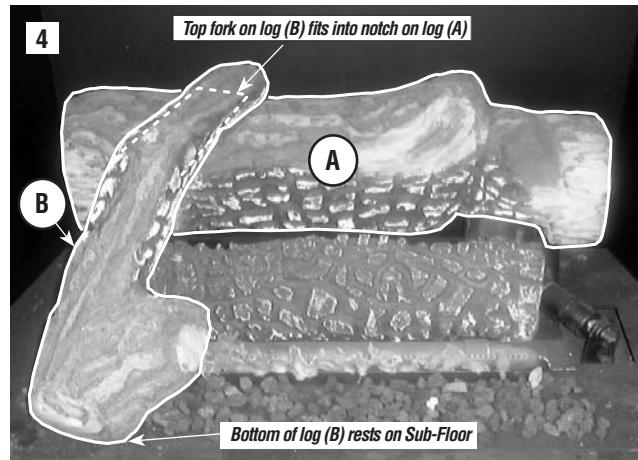
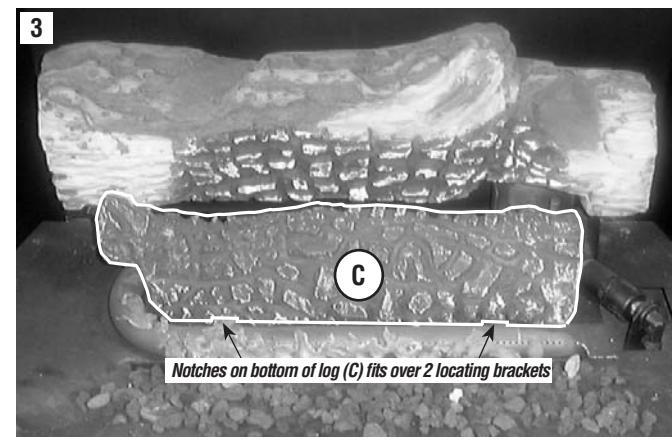
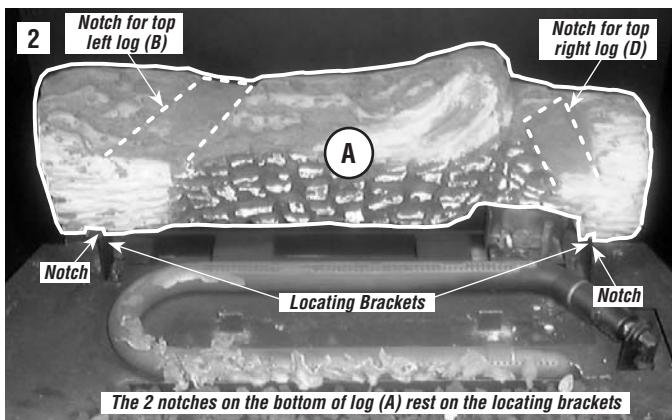
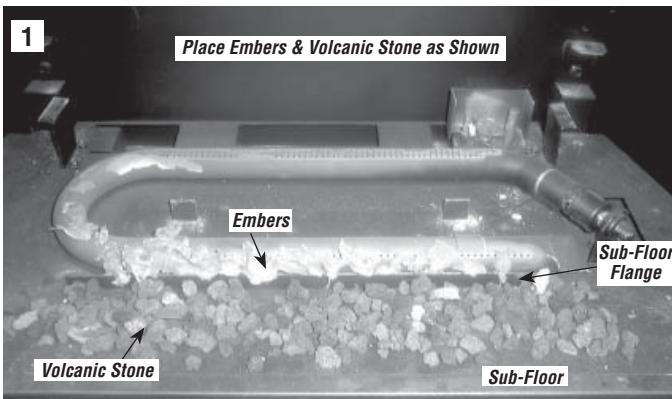


Figure 8

## MODEL SSDV-4035

### Log Placement Instructions

LOG SET	
Catalog Number H3368	
* Item	Description
A	Log, Rear
B	Log, Top Left
C	Log, Center
D	Log, Top Right

\* Item "letters" above correspond to photos

Install the Embers, Volcanic Stone and Logs in the order shown here (1 through 5) and per the instructions on Page 8.

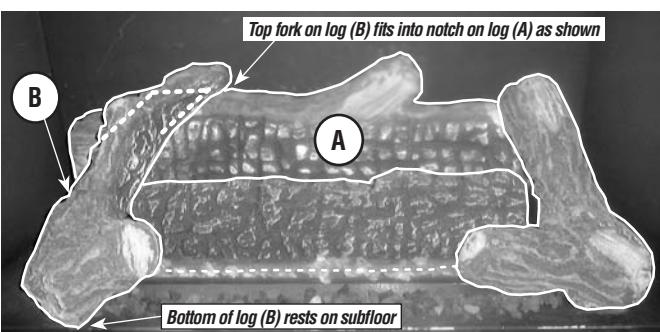
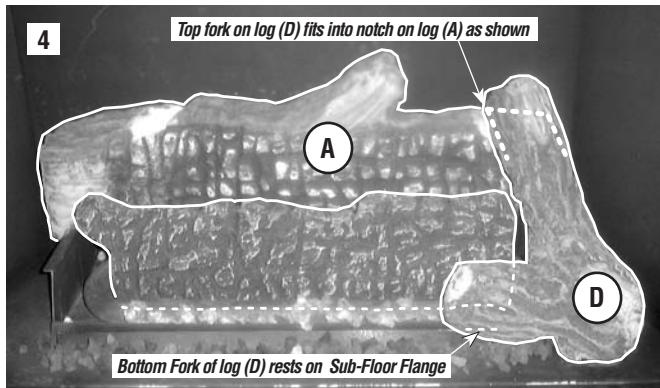
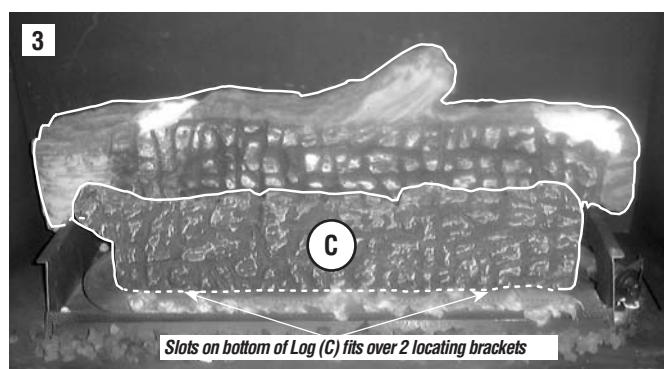
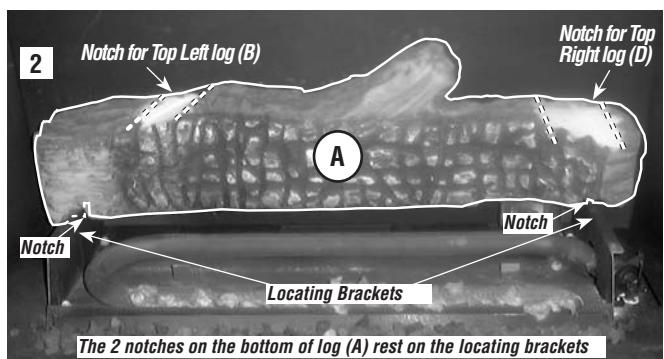
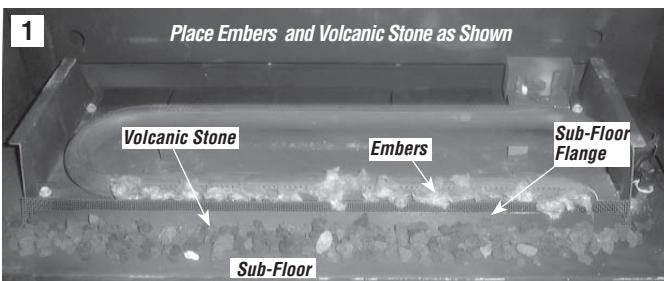
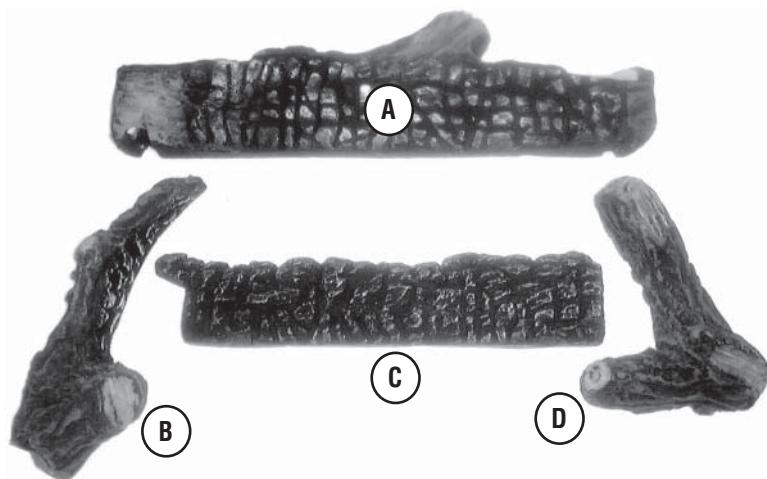


Figure 9

## BURNER ADJUSTMENTS (QUALIFIED TECHNICIANS ONLY)

### Flame Appearance and Sooting

Proper flame appearance is a flame which is blue at the base and becomes yellowish-orange in the body of the flame. When the appliance is first lit, the entire flame may be blue and will gradually turn yellowish-orange during the first 15 minutes of operation. If after a short period the flame stays lowered blue, or if the flame is orange with evidence of sooting (black tip), the air shutter opening may need to be adjusted.

If the air shutter openings closed too far, sooting may develop. Sooting is indicated by black puffs developing at the tips of very long orange flames. Sooting results in black deposits forming on the logs, appliance inside surfaces and on exterior surfaces adjacent to the vent termination. Sooting is caused by incomplete combustion in the flames and lack of combustion air entering the air shutter opening. To achieve a warm yellowish-orange flame with an orange body that does not soot, the shutter opening must be adjusted between these two extremes.

### Air Shutter Adjustment Guidelines

- If there is smoke or soot present, first check the log set positioning to ensure that the flames are not impinging on any of the logs. If the log set is properly positioned and a sooting condition still exists, then the air shutter opening should be increased.
- The more offsets in the vent system, the larger the air shutter opening will need to be.
- An appliance operated with the air shutter opened too far, may have flames that appear blue and transparent. These weak, blue and transparent flames are termed anemic.
- Propane models may exhibit flames which candle or appear stringy. If this is present and persists, adjust the air shutter to a more closed position, then operate the appliance for a few more minutes to ensure that the flame normalizes and the flames do not appear sooty.

The following chart is provided to aid you in achieving the correct air shutter adjustment for your installation.

Air Shutter Adjustment Guidelines:		
Amount of Primary Air	Flame Color	Air Shutter Adjustment
If air shutter is closed too far →	Flame will be orange →	Air shutter gap should be increased
If air shutter is open too far →	Flame will be blue →	Air shutter gap should be decreased



**Figure 10 - Burner Flame Appearance Models SSDV-3530 & SSDV-4035 Series**

### Burner Air Shutter Adjustment Procedure

1. Locate adjustment rod and adjust air shutter to the standard setting as shown in **Figure 11** (adjustment rod is located in the lower control compartment). **Note:** Rotating the adjustment rod counterclockwise increases air and clockwise decreases air.
2. Light appliance (follow lighting procedure on lighting label in control compartment or see homeowners manual).
3. Allow the burner to operate for at least 15 minutes while observing the flame continuously to ensure that the proper flame appearance has been achieved (see **Figure 10**). If the following conditions are present, adjust accordingly.
  - If flame appears weak or sooty, adjust the air shutter, incrementally, to a more open position until the proper flame appearance is achieved.
  - If flame stays lowered blue, adjust the air shutter, incrementally, to a more closed position until the proper flame appearance is achieved.
4. Leave the control knob (off/pilot/on) in the ON position and the burner OFF/ON switch OFF (& remote switches, if applicable).
5. When satisfied that the burner flame appearance is normal, close the lower control compartment door.

### ! WARNING

**Air shutter adjustment should only be performed by a qualified professional service technician.**

### ! WARNING

**Ensure front glass panel is in place and sealed during adjustment.**

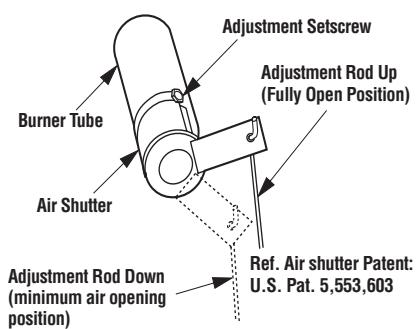
### ! CAUTION

**The air shutter door and nearby appliance surfaces are hot. Exercise caution to avoid injury while adjusting flame appearance.**

### ! CAUTION

**Carbon will be produced if the air shutter is closed too much. Any damage due to carboning resulting from improperly setting the air shutter is not covered under the warranty.**

### Burner Air Shutter Adjustment



Main Burner Factory Air Shutter  
Opening Setting - Inches (millimeter)

Model	Natural Gas	Propane Gas
SSDVT-3530	1/4 (6.35 mm)	1/2 (12.70 mm)
SSDVR-3530	1/4 (6.35 mm)	1/2 (12.70 mm)
SSDVT-4035	1/4 (6.35 mm)	1/2 (12.70 mm)
SSDVR-4035	1/4 (6.35 mm)	1/2 (12.70 mm)

Figure 11

### Millivolt Appliance Checkout

The pilot flame should be steady, not lifting or floating. Flame should be blue in color with traces of orange at the outer edge.

The top 3/8" (10 mm) at the pilot generator (thermopile) and the top 1/8" minimum (tip) of the quick drop out thermocouple should be engulfed in the pilot flame. The flame should project 1" (25 mm) beyond the hood at all three ports. See **Figure 12 or 13**.

To light the burner, refer to the lighting instructions on **Pages 17 & 18**.

### SIT MILLIVOLT PILOT ASSEMBLY

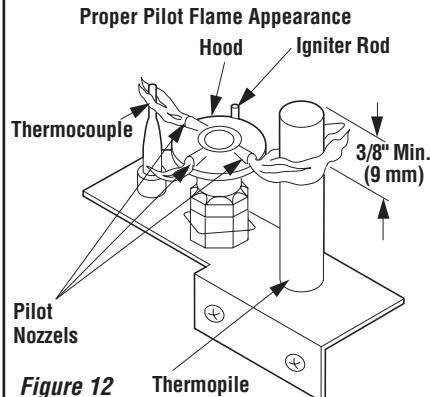


Figure 12

### HONEYWELL MILLIVOLT PILOT ASSEMBLY

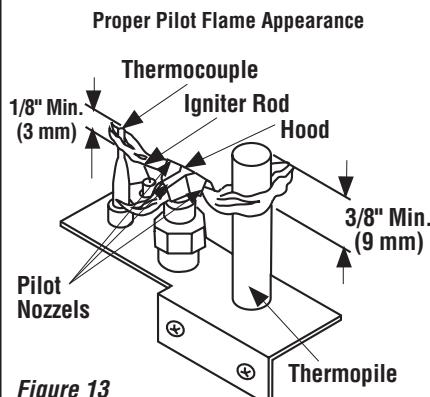


Figure 13

### Electronic Appliance Checkout

To light the burner, refer to the lighting instructions on **Pages 19 & 20**. Ensure the igniter lights the pilot. The pilot flame should engulf the flame sensor as shown in **Figure 14**.

### ELECTRONIC PILOT ASSEMBLY

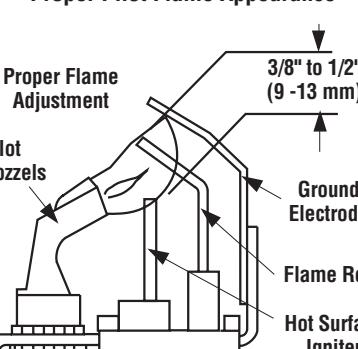


Figure 14

With proper care and maintenance, your appliance will provide many years of enjoyment. If you should experience any problem, first refer to the troubleshooting guide in this manual. If problem persists, contact your Lennox distributor.

## WIRING DIAGRAMS

Wiring diagrams are provided here for reference purposes only. This information is also provided on schematics attached directly to the appliance on a pullout panel located within the control compartment.

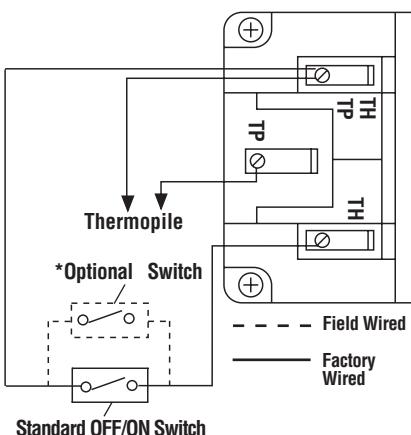
### ! CAUTION

**Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous appliance operation.**

#### Millivolt Wiring Diagram

##### Schematic Representation Only

If any of the original wire as supplied must be replaced, it must be replaced with Type AWM105 C - 18 gage wire.



\* Optional Kits Installed - OFF/ON wall switch, wall thermostat or remote control receiver. Note: Turn the appliance-mounted OFF/ON burner control switch to the OFF position if any of these kits are installed.

Figure 15

#### Electronic Wiring Diagram (Honeywell) Showing Blower Wiring for Optional FBK-100, FBK-200 & FBK-250 Kits Schematic Representation Only

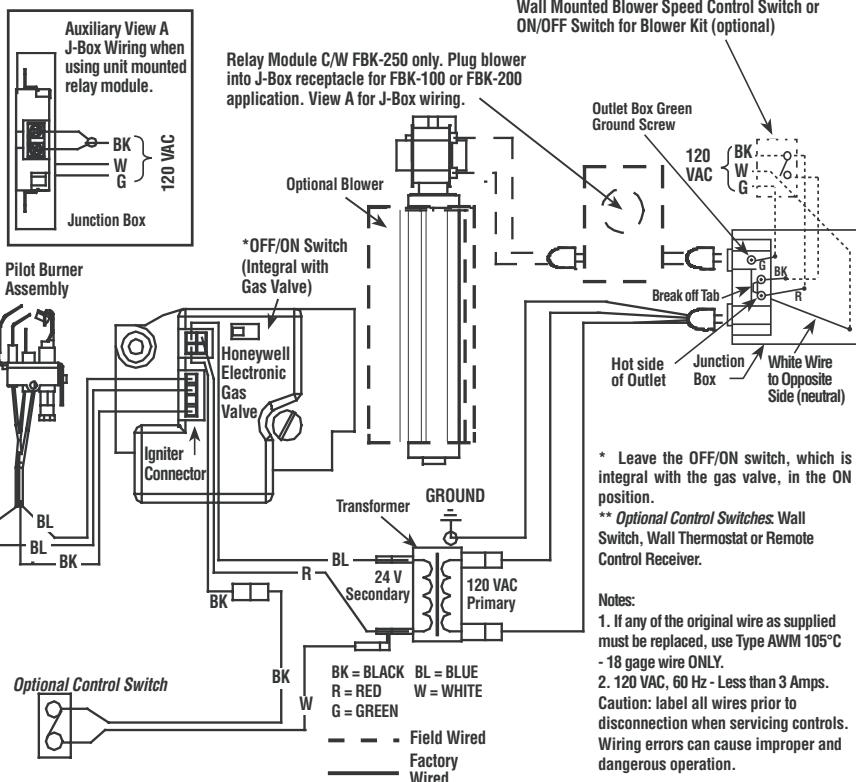


Figure 16

## WARRANTY

Your gas appliance is covered by a limited twenty year warranty. You will find a copy of the warranty accompanying this manual. Please read the warranty to be familiar with its coverage.

Retain this manual. File it with your other documents for future reference.

## PRODUCT REFERENCE INFORMATION

We recommend that you record the following important information about your fireplace. Please contact your Lennox dealer for any questions or concerns. For the number of your nearest Lennox dealer, please call 1-800-9-LENNOX.

Visit us at [www.Lennox.com](http://www.Lennox.com)

Your Fireplace's Model Number \_\_\_\_\_

Your Fireplace's Serial Number \_\_\_\_\_

The Date On Which Your Fireplace Was Installed \_\_\_\_\_

The Type of Gas Your Fireplace Uses \_\_\_\_\_

Your Dealer's Name \_\_\_\_\_

## REPLACEMENT PARTS

A complete parts list is found at the end of this manual. Use only parts supplied from the manufacturer.

Normally, all parts should be ordered through your Lennox distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:

1. The model number of the appliance.
2. The serial number of the appliance.
3. The part number.
4. The description of the part.
5. The quantity required.
6. The installation date of the appliance.

If you encounter any problems or have any questions concerning the installation or application of this system, please contact your distributor, or Lennox directly:

**LHP**  
1110 West Taft Avenue  
Orange, CA 92865

位エリアA mを特定し、その特定された方位エリアA mに応じた方位補正を行った後、S 1 6 0に移行する。

#### 【0034】

具体的には、各方位エリアの角度幅を $\Phi$ 、物標検出処理にて求められた方位を $\alpha_0$ とすると、実際の方位 $\alpha$ は次式（1）により求められる。

$$\alpha = \alpha_0 + 2m\Phi \quad (1)$$

S 1 6 0では、物標検出処理にて算出された距離及び相対速度と、同処理にて算出された方位、又はS 1 5 0にて方位補正が行われた場合にはその補正された方位とを、対象物標についての履歴データとして記憶し、続くS 1 7 0では、S 1 6 0にて記憶された履歴データに基づいて、その対象物標が次回の測定期間にて検出されるべき予測位置（予測距離、予測方位）を算出する。

#### 【0035】

そして、S 1 8 0では、予測位置が方位エリアA 0内にあるか否かを判断し、方位エリアA 0内であれば、そのまま本処理を終了する。一方、予測位置が方位エリアA 0外であれば、S 1 9 0に移行し、方位エリアA 0内の見かけ上の予測位置を算出すると共に、予測位置の付属情報として、実際の予測位置が属する方位エリアA mの番号mを、見かけ上の予測位置と共に記憶して、本処理を終了する。

#### 【0036】

なお、見かけ上の予測位置とは、S 1 7 0にて算出された予測方位を、位相差 $\Delta\theta$ における位相の折返しを考慮しないで算出した場合に得られる方位エリアA 0内での方位（見かけ上の方位）に置き換えたものである。具体的には、予測方位を $\alpha_p$ 、予測位置が属する方位エリアをA mとすると、見かけ上の予測方位 $\alpha_{op}$ は、次式（2）にて算出される。

#### 【0037】

$$\alpha_{op} = \alpha_p - 2m\Phi \quad (2)$$

以上説明したように、本実施形態のレーダ装置2によれば、図8に示すように、方位エリアA 0内で物標が検出され、その後、方位エリアA+1に移動（図中実線で示す）することにより、実際の位置とは異なる位置（図中点線で示す）にて

物標が検出されることになったとしても、その物標についての履歴データから、物標が実際に存在する方位エリア  $A_m$  (図8では  $m=+1$ ) を特定することができるため、その特定される方位エリア  $A_m$  と、方位エリア  $A_0$  内で検出される見かけ上の位置 (見かけ上の方位  $\alpha_0$ ) とから、実際の位置 (実際の方位  $\alpha$ ) を正しく求めることができる。

#### 【0038】

このように、本実施形態のレーダ装置2によれば、方位エリア  $A_0$  以外に位置する物標でも、その方位を正しく求めることができるために、物標を検知可能な範囲を拡大することができる。

また、本実施形態のレーダ装置2によれば、上述した検知可能な範囲の拡大のために、受信アンテナ  $A_R 1 \sim A_R N$  間の間隔を狭める必要がなく、また、方位エリア  $A_0$  の境界でゲインが急峻に変化するようなアンテナを用いる必要もないため、アンテナ部分に特別な変更を加えることなく安価に高機能化を図ることができる。

#### 【0039】

また、配置間隔の異なる2系列のアンテナを用いた従来装置のように、各系列にて同様の処理をそれぞれ行う必要がなく、簡易な方位補正処理を追加するだけで、これと同様の効果を得ることができ、この従来装置と比較して、処理量も大幅に削減できる。

#### 【0040】

なお、本実施形態では、物標検出処理が方位算出手段、  $S_{110} \sim S_{120}$  ,  $S_{140}$  ,  $S_{170} \sim S_{190}$  が領域特定手段、  $S_{150}$  が補正手段、  $S_{160}$  が記憶手段に相当する。

#### [第2実施形態]

次に第2実施形態について説明する。

#### 【0041】

図3は、本実施形態のレーダ装置2aの全体構成を表すブロック図である。

なお、本実施形態のレーダ装置2aは、第1実施形態のレーダ装置2とは、構成の一部と、信号処理部にて実行される処理の一部が異なるだけであるため、同

一の構成部分については、同一符号を付して説明を省略し、第1実施形態とは異なる部分を中心に説明する。

#### 【0042】

図3に示すように、本実施形態のレーダ装置2aは、第1実施形態のレーダ装置2の構成に加えて、方位エリアA0を含むより広いエリア（本実施形態では $-30^\circ \sim +30^\circ$ ）を撮像するCCDカメラ16を備え、信号処理部10では、AD変換部8を介して取り込まれるデジタルデータDiに基づく物標検出処理と、CCDカメラ16にて撮像された画像データに基づく物標認識処理と、物標検出処理にて検出された物標の方位を、物標認識処理での認識結果に従って補正する方位補正処理を実行するようにされている。

#### 【0043】

なお、物標検出処理は、第1実施形態と全く同様であるため説明を省略する。また、物標認識処理では、パターン認識などの画像処理を行うことにより撮像画面上で物標が存在する可能性が高い領域を抽出するものである。その具体的な方法としては様々なものが提案されているが、どの方法を用いてもよく、その方法の詳細は本発明の要旨とは関係がないため、ここでは説明を省略する。

#### 【0044】

ここで、第1実施形態とは内容の異なる方位補正処理を、図4に示すフローチャートに沿って説明する。但し、本処理は、物標検出処理にて検出された物標のそれぞれについて実行されるものとする。

本処理が起動すると、まずS210では、処理対象となった物標（対象物標）について、物標検出処理にて求められた距離、相対速度、方位を入力し、続くS220では、その入力された距離及び方位に基づいて、CCDカメラ16で撮像される撮像画面上で対象物標が検出されるべき位置を算出する。なお、この算出には、3次元空間内の位置を2次元平面上に投影する公知の方法を用いればよい。

#### 【0045】

そして、S230では、物標認識処理での認識結果に基づき、S220にて算出された位置に物標が存在するか否かを判断し、存在すればS270に移行し、

存在しなければS240に移行する。

S240では、物標検出処理での方位の算出に用いた位相差 $\Delta\theta$ に、位相の折返しがあったものとして改めて方位を算出し、この方位を用いて撮像画面上で対象物が検出されるべき位置（予測位置）を算出する。このとき、CCDカメラ16の撮像範囲内にある方位エリアA0を除く全ての方位エリアAmについて、位相差 $\Delta\theta$ に対応する方位 $\alpha$ をそれぞれ算出する。

#### 【0046】

具体的には、図5に示すように、物標検出処理にて算出された方位（見かけ上の方位）を $\alpha_0$ とすると、可能な全てのm（図では $m=\pm 1$ ）について、上述の（1）式を用いて、方位 $\alpha$ （= $\alpha_0 + 2m\Phi$ ）を求め、その求めた方位 $\alpha$ のそれについて撮像画面上での予測位置を算出する。

#### 【0047】

続くS250では、物標認識処理での認識結果に基づき、S240にて算出された予測位置のいずれかに物標が存在するか否かを判断し、存在すればS260に移行して、その予測位置の算出に使用した方位を対象物標の方位とする方位補正を行った後S270に進む。

#### 【0048】

S270では、物標検出処理にて算出された対象物標についての距離、相対速度と、同処理にて算出された方位、又はS260にて方位が特定された場合にはその特定された方位とを、対象物標についての履歴データとして記憶し、本処理を終了する。

#### 【0049】

一方、先のS250にて、S240にて算出された予測位置のいずれにも物標が存在しない場合には、S280に移行して、その対象物標を除去する等のエラー処理を行った後、本処理を終了する。

以上説明したように、本実施形態のレーダ装置2aでは、レーダ波の送受信により得られるデータと、CCDカメラ16での撮像により得られるデータとを照合することで、物標が存在する方位（方位エリアAm）を特定するようにされている。このため、レーダ波から得られる位相差 $\Delta\theta$ の情報に位相の折返しが生じ

ていたとしても、両データから特定される方位エリアA<sub>m</sub>と、方位エリアA<sub>0</sub>内で検出される見かけ上の位置（見かけ上の方位 $\alpha_0$ ）とから、実際の位置（実際の方位 $\alpha$ ）を正しく求めることができ、第1実施形態のレーダ装置2と同様の効果を得ることができる。

#### 【0050】

なお、本実施形態では、CCDカメラ16が撮像手段、物標検出処理が距離算出手段、S220、S240が写像手段、S230、S250が判断手段に相当する。

以上本発明のいくつかの実施形態について説明したが、本発明は上記実施形態に限定されるものではなく、様々な態様にて実施することが可能である。

#### 【0051】

例えば、上記実施形態では、受信アンテナを複数備えたレーダ装置に適用したが、送信アンテナを複数備えたレーダ装置（受信アンテナは一つでも複数でもよい）に適用してもよい。

また、上記実施形態では、アンテナの半値幅が方位エリアA<sub>0</sub>とほぼ等しくなるように設定されているが、これより広く設定して、方位エリアA<sub>0</sub>以外の物標をより積極的に検出できるようにしてもよい。

#### 【図面の簡単な説明】

【図1】 第1実施形態のレーダ装置の全体構成を示すブロック図である。

【図2】 第1実施形態における方位補正処理の内容を示すフローチャートである。

【図3】 第2実施形態のレーダ装置の全体構成を示すブロック図である。

【図4】 第2実施形態における方位補正処理の内容を示すフローチャートである。

【図5】 第2実施形態での動作を示す説明図である。

【図6】 位相差に基づく方位検出の原理を示す説明図である。

【図7】 位相差と方位との関係、及びアンテナ特性の設定例を示す説明図である。

【図8】 従来装置の問題点、及び第1実施形態での動作を示す説明図である

。 【図9】 位相差と方位との関係、及びアンテナ特性の設定例を示す説明図である。

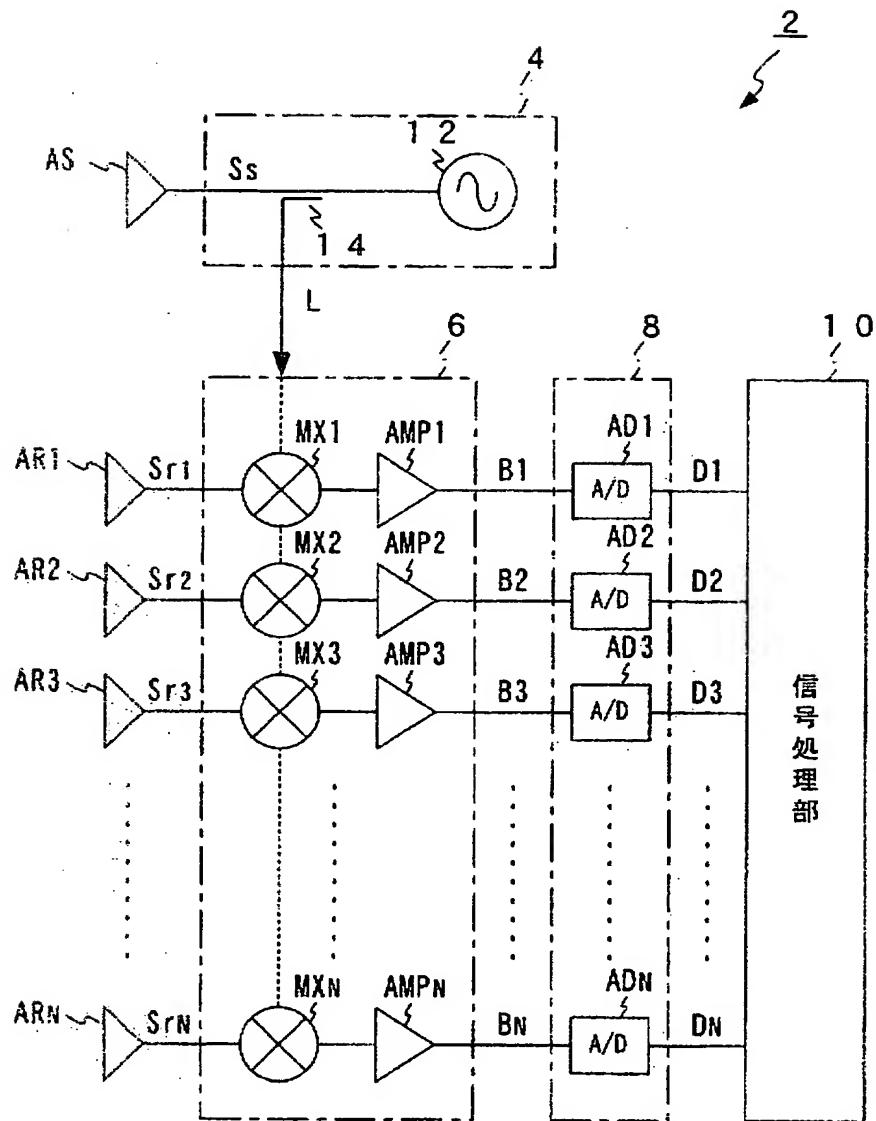
【符号の説明】

2, 2a…レーダ装置、4…送信器、6…Nチャネル受信器、8…A D変換部  
、10…信号処理部、12…高周波発振器、14…分配器、16…C C Dカメラ  
、Am…方位エリア、ADi…A D変換器、AMPi…増幅器、ARI…受信アンテナ、AS…送信アンテナ、MXi…高周波用ミキサ。

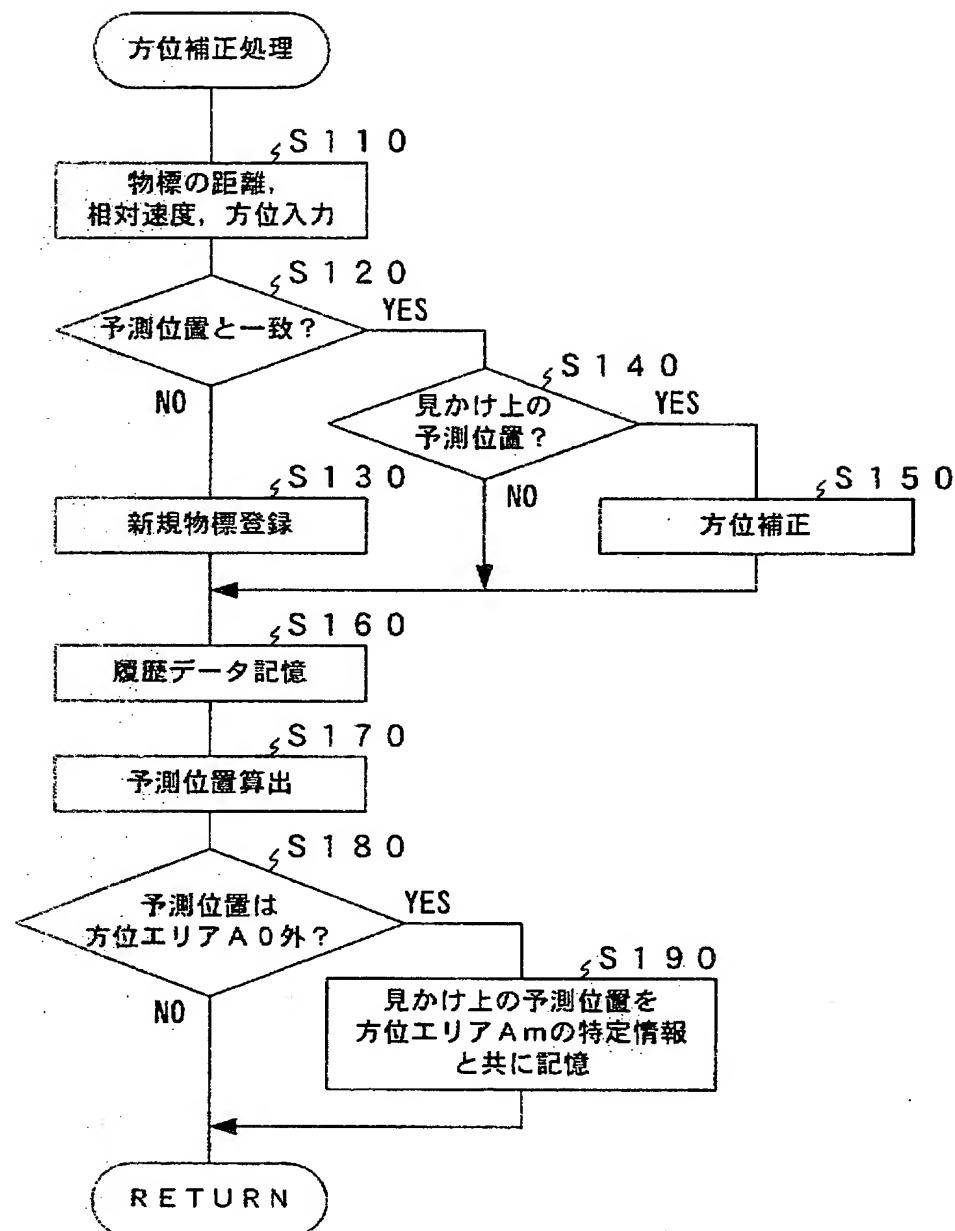
【書類名】

図面

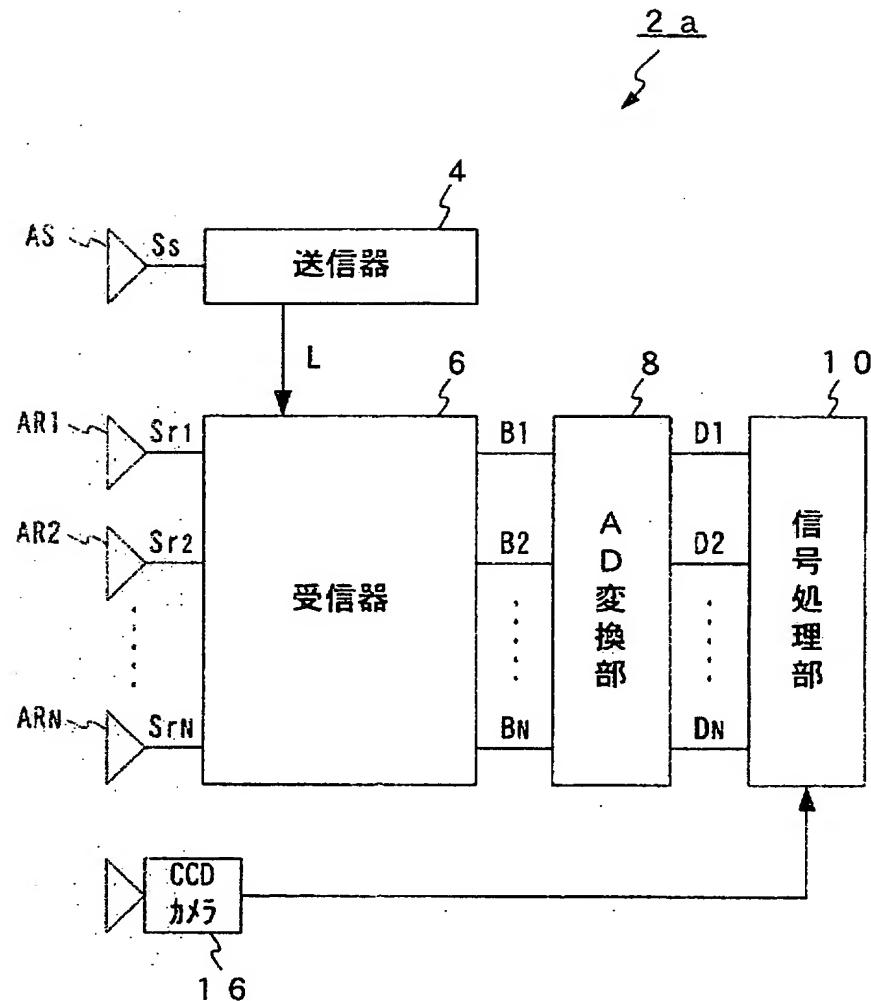
【図 1】



【図 2】



【図3】



## TROUBLESHOOTING PROCEDURE - ELECTRONIC IGNITION SYSTEM

### START

- Turn Off Gas Supply.
- Ensure Valve Switch Is In ON Position.
- Disconnect Control Harness.
- Set Thermostat To Call For Heat.

2

- Check for proper voltage at control harness (see insert A). Voltage should be 24V between thermostat or pressure switch and 24V common and 24V hot.

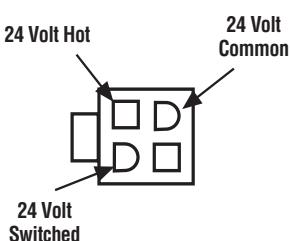
### CHECK

- Line voltage power
- Low voltage transformer
- Limit controller
- Thermostat
- Wiring

NO

### Insert A

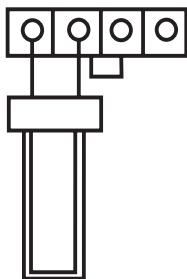
#### End View of Control Harness Connector



#### Check For Damaged or Missing Terminals in Connector

### Insert B

#### Igniter Terminals



- Plug control harness into valve. Wait for internal check delay.

- Igniter warms up and glows red.

1 YES

- Turn on gas supply.
- Pilot burner lights.

NO

1 2

- With pilot burner cable connected, measure voltage at valve HSI element output. 24V nominal. (See insert B)

NO

- Replace valve.

- Replace igniter/flame rod assembly.

YES

- Check that pilot gas is flowing. Wait to ensure pilot gas tubing is purged. Recycle call for heat if necessary.

NO

- Replace valve.

YES

- Measure voltage between 24V hot and 24V common leads to valve control. Must measure at least 19.5 VAC with igniter powered (see insert A). To identify proper lead, this check must be done with the valve control connected and igniter powered.

NO

- Check transformer and line volt supply.

YES

- Replace Pilot Assembly.

- Main valve opens and main burner lights.

NO

- Check that pilot flame makes good contact with pilot burner flame rod.
- Check for good electrical connection through the pilot tubing.
- If both of the above are good, replace igniter/flame rod assembly.

YES

- System is okay.

YES

- Cycle thermostat off and back on.

NO

- Replace valve.

- Main burner lights.



Igniter will cycle off and back on once during the 90 second ignition trial. All voltage measurements must be taken while the igniter is powered.



When measuring voltage at connections, use care to ensure terminals are not damaged.

## REPLACEMENT PARTS LIST

Item #	Description	SSDV-3530		SSDV-4035	
		Part No.	Qty.	Part No.	Qty.
1	Hood, Charcoal	97K51	1	97K52	1
2	Louver Assembly, Top, Charcoal	H3376	1	H3377	1
3	* Louver Assembly, Bottom, Charcoal	H3379	1	H3380	1
4	Enclosure, Glass Front (Complete)	H4864	1	H3724	1
5	Nameplate, Superior (logo)	56L93	1	56L93	1
6	Latch	69L21	2	69L21	2
7	Log Set (Complete)	H3367	1	H3368	1
8	Burner Assembly	69L09	1	69L10	1
9	Burner Bracket	LB-92357	1	LB-92357	1
10	Ember Screen	LB-92438B	1	LB-92438C	1
11	Orifice, Main Burner - Natural Gas	69L09	1	18L40	1
11	Orifice, Main Burner - Propane Gas	99K79	1	37G00	1
12	Bag of Glowing Embers (Rockwool)	88L53	1	88L53	1
12	Bag of Decorative Volcanic Stone	80L42	1	80L42	1
13	Gas Line Flexible Connector, FFGC	93L32	1	93L32	1

\* Superior Nameplate Logo, 56L93, is not included.

Gas Controls - SIT Millivolt					
		Natural Gas		Propane Gas	
		Part No.	Qty.	Part No.	Qty.
14	Gas Valve, SIT	43K07	1	88J53	1
15	Piezo Igniter	91K94	1	91K94	1
16	Pilot Assembly	69L17	1	69L18	1
17	Pilot Generator	60J79	1	60J79	1
18	Thermocouple	74L57	1	74L57	1
19	Pilot Tube	74L56	1	74L56	1
20	Electrode and Cable	74L58	1	74L58	1
21	Pilot Shield	H3737	1	H3737	1

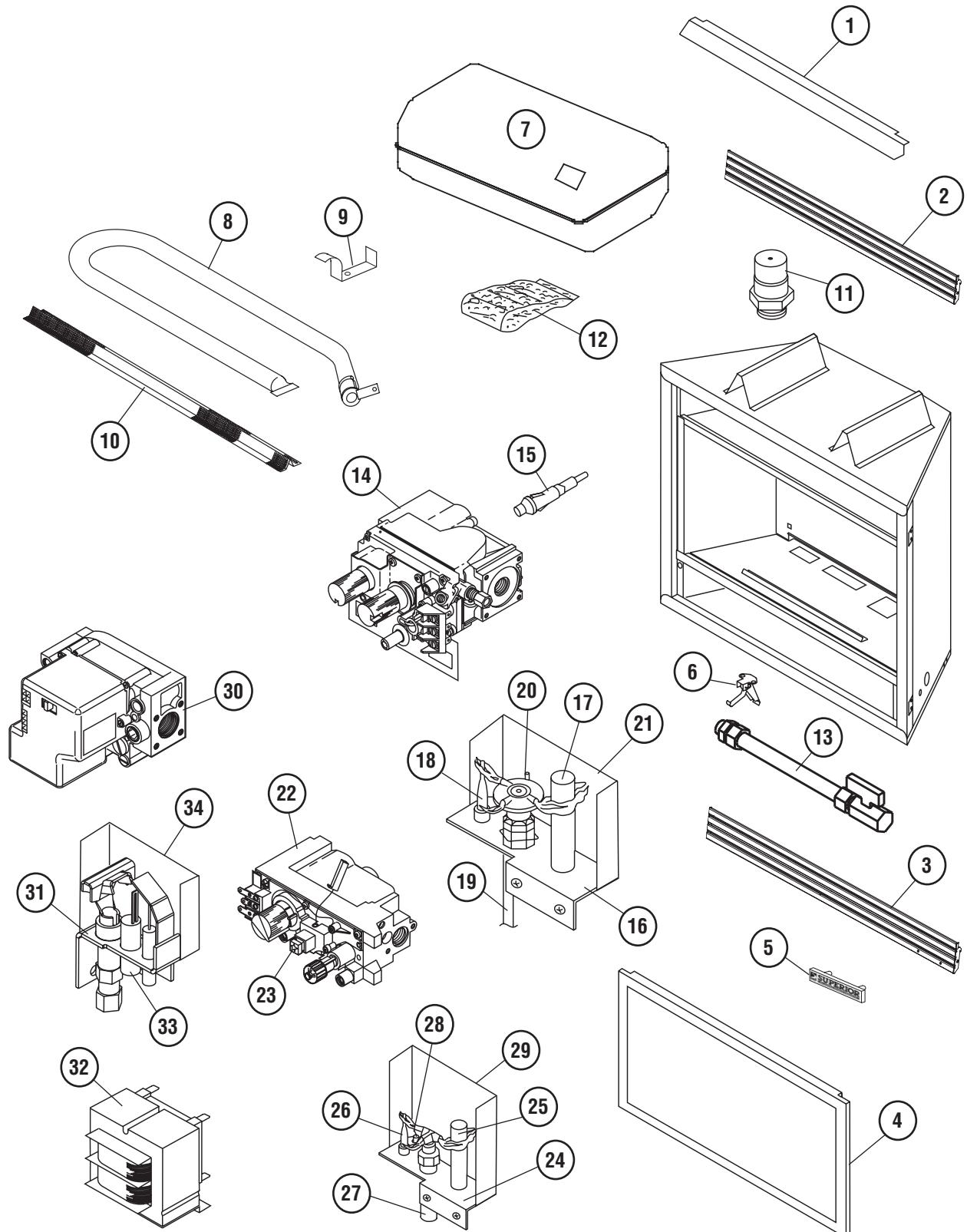
Gas Controls - Honeywell Millivolt					
		Natural Gas		Propane Gas	
		Part No.	Qty.	Part No.	Qty.
22	Gas Valve, Honeywell	24M12	1	82L87	1
23	Piezo Igniter	24M89	1	24M89	1
24	Pilot Assembly	67L70	1	67L70	1
25	Pilot Generator	60J79	1	60J79	1
26	Thermocouple	67L67	1	67L67	1
27	Pilot Tube	67L68	1	67L68	1
28	Electrode and Cable	67L87	1	67L87	1
29	Pilot Shield	H3737	1	H3737	1

Gas Controls - Honeywell Electronic					
		Natural Gas		Propane Gas	
		Part No.	Qty.	Part No.	Qty.
30	Gas Valve, Honeywell	62L18	1	62L19	1
31	Pilot Assembly	62L14	1	62L15	1
32	Transformer	42J32	1	42J32	1
33	Igniter Assembly (Kit)	87L54	1	87L54	1
34	Pilot Shield	H1596	1	H1596	1



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

## REPLACEMENT PARTS DIAGRAMS



## NOTES

## NOTES

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LHP reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.

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